

Claims

1. A process for the production of L-aldonolactone from L-aldohehexose by a microorganism capable of producing L-aldonolactone from L-aldohehexose, and, optionally, isolating the L-aldonolactone from the reaction mixture.
- 5 2. The process according to claim 1 wherein the L-aldonolactone is selected from the group consisting of L-gulono-1,4-lactone, L-gulonic acid, L-galactono-1,4-lactone, and L-galactonic acid.
3. The process according to claim 1 wherein the L-aldohehexose is selected from L-gulose or L-galactose.
- 10 4. The process according to claim 1 wherein the microorganism is selected from *Pseudomonas* or *Gluconobacter*.
5. The process according to claim 4 wherein the microorganism is *Pseudomonas putida* or *Gluconobacter oxydans*.
6. The process according to claim 4 wherein the microorganism is *P. putida* ATCC
15 21812 or *G. oxydans* IFO 3293.
7. The process of claim 1 wherein the microorganism is used in a growing culture or a resting cell reaction.
8. The process of claim 1 wherein the process is conducted for 1 to 120 h at a pH in the range of from about 1 to about 9 and at a temperature in the range of from about
20 13°C to about 45°C.
9. The process of claim 8 wherein the process is conducted for 1 to 120 h at a pH in the range of from about 2 to about 8 and at a temperature in the range of from about 18°C to about 42°C.
